ABSTRACT OF THE INVENTION

A method for preventing deadlock in communication between a host software application and a network interface card (NIC), comprises writing a doorbell associated with at least one descriptor having a descriptor context to a buffer in the NIC, dropping at least one doorbell from the buffer if the buffer is full, thereby allowing a write of a new doorbell to the buffer, and recovering each dropped doorbell for further execution of descriptors associated with this doorbell. The descriptor execution is in order of posting by the application to the NIC. A system implementing the method comprises a doorbell drop mechanism and a doorbell recovery mechanism.